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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,114	03/31/2004	Haruhiko Horiuchi	009270-0308987	5537

909 7590 07/24/2006

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EXAMINER
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NICHOLSON III, LESLIE AUGUST

ART UNIT	PAPER NUMBER
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3651

DATE MAILED: 07/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/813,114	<b>Applicant(s)</b> HORIUCHI, HARUHIKO	
	<b>Examiner</b> Leslie A. Nicholson III	<b>Art Unit</b> 3651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments and Amendments***

1. Applicant's arguments filed 7/3/2006 have been fully considered.

Regarding the new claim amendments:

Malachowski (USP 5,135,213) now teaches the take-out unit configured to take out an uppermost sheet from said sheets and teaches depressing the sheets on a rear portion of the sheets (see ¶3). The device of Herold (USP 3,945,095) is capable of maintaining the sheets separated from each other when air is spouted out and is capable of separating the front portion of the sheets from each other. Furthermore, means plus function language has not been used. The limitations "in order for the front portion of said sheets to separate from each other" and "when the air spouted out maintains the sheets separated from each other" fail to further structurally limit the claimed invention. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4,8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitzel USP 4,324,394 in view of Herold USP 3,945,095 further in view of Malachowski USP 5,135,213.

Mitzel discloses a similar sheet take-out apparatus comprising:

- A sheet-feeding member (203) on which sheets are placed
- A take-out unit having a take-out rotor (105) and a reverse rotation rotor (91) each provided with surfaces in which suction holes (116,108) are defined

Mitzel does not expressly disclose an air-spout unit to spout out air toward a right or left side of a front portion of said sheets with respect to a taking-out direction of said sheets or a depression member located behind a central portion of said sheets with respect to the taking-out direction, or the take out unit configured to take out an uppermost sheet.

Herold teaches an air spout unit (5,6,7,8) to spout out air toward a right or left side of a front portion of said sheets with respect to a taking-out direction of said sheets (see all figures) for the purpose of separating the sheets from one another prior to edge-alignment (C4/L14-17).

At the time of invention it would have been obvious to one having ordinary skill in the art to employ an air spout unit to spout out air toward a right or left side of a front portion of said sheets with respect to a taking-out direction of said sheets, as taught by Herold, in the device of Mitzel, for the purpose of separating the sheets from one another prior to edge-alignment.

Malachowski teaches the take-out unit configured to take out an uppermost sheet and a depression member located behind a central portion of said sheets with respect to the taking-out direction (see figures) for the purpose of preventing the next top sheet beneath the top sheet from being forwarded out of the tray while the top sheet is being forwarded out of the tray (C1/L53-64).

At the time of invention it would have been obvious to one having ordinary skill in the art to employ a depression member located behind a central portion of said sheets with respect to the taking-out direction and configure the take-out unit to take out an uppermost sheet, as taught by Malachowski, in the device of Mitzel, for the purpose of preventing the next top sheet beneath the top sheet from being forwarded out of the tray while the top sheet is being forwarded out of the tray.

4. Claims 5,6,7,8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitzel USP 4,324,394 in view of Herold USP 3,945,095 and Malachowski USP 5,135,213 further in view of Hunt USP 4,395,035.

Mitzel discloses all the limitations of the claims (see ¶3), but does not expressly disclose an air jet nozzle to depress said sheets against said sheet-feeding member.

Hunt teaches an air jet nozzle (32) to depress said sheets against said sheet-feeding member for the purpose of aiding in shingling the sheets (C3/L9-24).

At the time of invention it would have been obvious to one having ordinary skill in the art to employ an air jet nozzle to depress said sheets against said sheet-feeding

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member, as taught by Hunt, in the device of Mitzel, for the purpose of aiding in shingling the sheets.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mitzel USP 4,324,394 in view of Herold USP 3,945,095 and Malachowski USP 5,135,213 and Hunt USP 4,395,035 further in view of Stievenart USP 4,348,019.

Mitzel discloses all the limitations of the claim, but does not expressly disclose the surface of the take-out rotor having a larger friction coefficient than that of the reverse rotation rotor.

Stievenart teaches a take-out unit (10) wherein a friction coefficient of the take-out rotor (12) is larger than that of the surface of a reverse rotation rotor (13) (C4/L40-48, C5/L45-63) for the purpose of advancing a sheet in the direction of feed that come in contact with the higher friction roller and displacing sheets in the opposite direction that come in contact with the lower friction roller (C2/L1-7).

At the time of invention it would have been obvious to one having ordinary skill in the art to have used a take-out unit wherein a friction coefficient of the take-out rotor is larger than that of the surface of a reverse rotation rotor, as taught by Stievenart, in the device of Mitzel, for the purpose of advancing a sheet in the direction of feed that come in contact with the higher friction roller and displacing sheets in the opposite direction that come in contact with the lower friction roller.

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6. Claims 10,11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitzel USP 4,324,394 in view of Herold USP 3,945,095 and Malachowski USP (in view of Stievenart USP 4,348,019) 5,135,213 further in view of Yokota JP 62140948.

Mitzel discloses all the limitations of the claim, but does not expressly disclose the air spout unit attached to guide members provided on both sides of the sheets on said sheet-feeding member.

Yokota teaches the air spout unit (1,2) attached to guide members provided on both sides of the sheets on said sheet-feeding member for the purpose of better securing and stabilizing the air spout unit.

At the time of invention it would have been obvious to one having ordinary skill in the art to have attached the air spout unit to the guide members, as taught by Yokota, in the device of Cheung, for the purpose of better securing and stabilizing the air spout unit.

***Allowable Subject Matter***

7. Claim 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

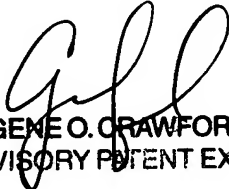
**Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie A. Nicholson III whose telephone number is 571-272-5487. The examiner can normally be reached on M-F, 8:30 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on 571-272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

L.N.  
7/17/2006

  
GENE O. CRAWFORD  
SUPERVISORY PATENT EXAMINER